## DOCKETED

## IN THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF NEW YORK

MIDWAY MANUFACTURING COMPANY:

Deposition of

VS.

William T. Rusch So

THE MAGNAVOX COMPANY

Eighth Day

and

- 74 Civ 1657 CBM

SANDERS ASSOCIATES. INC. :

IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS, EASTERN DIVISION

THE MAGNAVOX COMPANY, et al :

Consolidated Actions

VS.

74 C 1030 -

74 C 2510 ~

BALLY MANUFACTURING CORPORATION, et al

75 C 3153 75 C 3933

Continued deposition taken

pursuant to subpoena and notice at the Sanders Associates. Inc.: Headquarters, Spit Brook Road; Nashua, New Hampshire; Tuesday, March 16, 1976; commencing at ten o'clock in the (Irterrogatorias of the sectable) forenoon.

En. Parch, at one last session, you ware discussive the Emplayed our fer referre patent 100732 8 1976 which

UNITED STATES DISTRICT COURT

ERNEST W. NOLIN & ASSOCIATES STUTE CUMMINGHAM, OLERK

General Stenographic Reporters 369 ELGIN AVE., MANCHESTER, N. H. 03104 1 4 7 8 7 8 7 8 7 **TELEPHONE: 623-6906** 

Dehible as, I believe PRESENT: w I also hand you For Midway Manufacturing ration. Company, Bally Manufacturing Corporation and Empire: Donald L. Welsh, Esq., 135 South LaSalle Street, Chicago, of that declaration, Illinois your signature? Yes. For Sanders Associates, Inc., and Magnavox Company: Abol on what dale did you sign that declaration? James T. Williams, Esq., 77 West Washington Street, Chicago, Illinois. To you recall executive this declaration on or about For Sanders Associates: that dater Louis Etlinger, Esq., and I don't recell speci Richard I. Seligman, Esq., Daniel Webster Highway, South, That is two days, is Nashua, New Hampshire. of the oath for the earlier Stenotype Reporter: Yes. What is this or Ronald J. Hayward th one? That is the one for the 598 patent which was in your WILLIAM T. RUSCH name along with Mr. Basr and Mr. Harrison. It is called as a witness, having been previously sworn, was a reissue of Fatent No. 3,559,785. At the tive further examined and continued his testimony as follows: vou signed the declaration for the 500 reissue (Interrogatories by Mr. Welsh.) Mr. Rusch, at our last session, you were discussing the declaration for reissue patent No. 28,507 which bears a date opposite your name of April 22, 1974. I now hand you that oath which is a part of

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Q.

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Q.

Exhibit 48, I believe, and now I also hand you

Exhibit 42, pages thereof making up the declaration.

The exhibit being the certified file wrap contents

of reissue patent No. 28,598. On the fourth page

of that declaration, is that your signature?

- A. Yes ou understand now the reseon why the relesue
- Q. And on what date did you sign that declaration?
- A. It says April 24, 1974.

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- Q. Do you recall executing this declaration on or about that date? Whose reason are you referring to?
- A. I don't recall specifically. Shis Does he understand
- Q. That is two days, is it not, after the date of the oath for the earlier 507 reissue patent?
- A. Yes. What is this one for the April 24th one?
- Q. That is the one for the 598 patent which was in your name along with Mr. Baer and Mr. Harrison. It is a reissue of Patent No. 3,659,285. At the time you signed the declaration for the 598 reissue patent, do you recall whether you compared that with the declaration for reissue patent No. 28,507 which was filed in your name alone?
- A. I don't recall s as calling for hearsay
- Q. Would you now please read the declaration for the

reissue Patent 28,598? WLLSH: You may answer

- A. Yes, I have read it.
- Q. Do you still subscribe to all of the statements in that declaration?
- A. I believe so, yes. .. MR. WELSh: No, I asked him if
- Q. Do you understand now the reason why the reissue the application for reissue of Patent No. 3,659,285 was filed?

MR. WILLIAMS: I object to

the question. Whose reason are you referring to?

MR. WELSH: Does he understand question was read back

any reason.

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by the reporter.)

MP. WILLIAMS. T atil abia

MR. WILLIAMS: I still object to the question as vague. II think who had the reason that you referred to is important to page of this education, "That Pamr. WELSH: as Anyone. Do you ive understand the question? equilibration and because of said defective as THE WITNESS: the believe left understand the question. The witness of said latters fatted, MR. WILLIAMS: to object to the question if it calls for somebody's reason other class than the witness's as calling for hearsay information.

- Q. Bid you have anythin MR. WELSH: You may answer on?
- A. the question. Fly in talks with people in the

Sanders Patent DepartMR. tWILLIAMS: on I think he

has answered the question. of these words that are

in here and wrote the MRJ: WELSH: an No, I gasked himtif

he understood the question to He has not answered the

questions and had at the time you signed it?

You day at the time IMR. ETLINGER: Well, read it

o. back.

Α.

A. I believe so.

(Whereupon, the previous

Q. Did you actually read the foregoing specification question was read back and claims referred to in the declaration; by the reporter.)

A. I think so.

- what is said beginning on the first page of this we declaration, "That Patent 285 was partly inoperative by reason of a defective specification and because of said defective specification, the assignee of said Letters Patent and the exclusive licensee of said Letters Patent, may both fail to gain the full benefit of our invention to which they are entitled."
- Q. Who prepared the declaration?
- A. Ichave:no idea estimony (out rev regarding your

	N	
1	0 Q.	Did you have anything to do with its preparation?
	Α.	Only and possibly in talks with people in the red
		Sanders' Patent Department, but I don't believe tion,
		I specifically made up any of these words that are
	Α,	in here and wrote them down or anything like that.
11	Q• 1	Was it handed to you complete in the form which it
		has there and had at the time you signed it? issue
	Α.	You say at the time I signed it?
12	Q.	Yes acusty remember being told
Participation of the Control of the	A.	I believe so MR. WILLIAMS: Mr. Rusch,
13	Q.	Did you actually read the foregoing specification
	1.4	and claims referred to in the declaration?ou repeat
	A.	I thinks so. n, please?
14	Q.	At the time you were given the declaration and signed
		(Whereupon, the previous it, were you advised of any reason why the reissue
		application was being filed?
	A.	by the reporter.) I think it was the same reason I just quoted from
		the declaration THE WITNESS: Anything different
15	Q.	Is that the same reason you were given as to why
18	Ç.	the application for reissue of Patent No. 3,659,284
* *	e 16	wassfiled?d you, you started to say you vaguely
	Α.	Isthink so what do you vaguely recollect?
16	Q.	Now, in your testimony just now regarding your

understanding of the reason why the application for reissue Patent 28,598 was filed, you referred to and actually I believe read from the declaration, did you not? at told him whatever he might have Yes. told. I think you must, prior to asking what Do you have any independent recollection of any la reason which you were told about for this reissue application? I vaguely remember being told - . I don't remember exec MR: WILLIAMS: Mr. Rusch. the question calls for a yes or no answer. It was probably Mr. ETHE WITNESS: Would you repeat the question, aplease? which one of them it was. It may have then Mr. Wasn; I just don't remember (Whereupon, the previous exactiu. question was read back Do vou have any recollenatur of vour reservating by the reporter.)

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Q.

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the time when you are THE WITNESS: Anything different

Now, in your previous answer before Mr. Williams interrupted you, you started to say you vaguely recollect, what do you vaguely recollect?

basically from what is written here?

the question as vagar MR. WILLIAMS: Well, I object

to the question as lacking a foundation and as and counsel is well aware, there is a possible claim of attorney-client privilege here depending on who it was that told him whatever he might have been told. I think you must, prior to asking what he recalls being told, you must ascertain who told it to him and when and I instruct the witness not to answer decaranding, did that reason have anything

- Who advised you of the reason? sion games? Q.
- I don't remember exactly.ut mentioned on page 2 of Α.
- Q. Do you have any recollection at all?

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- It was probably Mr. Etlinger or Mr. Seligman; In A. can't recall exactly which one of them it was. "It'on
- may have been Mr. Baer; I just don't remember Α. exactly.
- (Thereupon, the previous Do you have any recollection of your understanding Q. question was read back of the reason for this reissue application as of ly the reporter.) the time when you executed the declaration?
- I don't recall specifically; I think it was again Α. as stated in this declaration. The tion?
- It had something to do with coin-operated TV games? Q. MR. WILLIAMS: I object to the question as vague. The witness has answered

I don't understand what the follow-up question is ner intended to convey. The may have been something wrong with this fatent 28 MR. WILLIAMS: The question was related to his understanding of the reason for the reissue application at the time that he executed the declaration.

- Q. In your understanding, did that reason have anything to do with coin-operated television games? 285 patent.
- A. I would think to the extent mentioned on page 2 of
- A. this declaration, yes, sure I actually understand
- Q. You don't have any recollection independently on
- page 2 of the declaration for the reissue application?
- A. May I have that question again?
- A. Yes.

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(Whereupon, the previous

O. As of the time you signed the declaration, did you question was read back understand why Letters Patent 3,659,285 was partly

by the reporter.)
inoperative by reason of a defective specification?

- the reason for the reissue application?
  - How is this specific MR. WELSH: tiYes.

MR. WILLIAMS: The question

has been asked and answered many timesalready and

I object to it for that reason.

being told that there may have been something wrong with this Patent 285 that needed further legal clarification and I believe that is the reason I was given as to why a reissue patent was being applied for.

- Q. Did you understand at the time you signed the declaration why the patent, that is, the 285 patent, needed legal clarification?
- A. I doubt it. "I am not sure I actually understand it now either." I am not sure I am not sure I.
- Q. Did you rely in that regard on the Legal Department at Sanders?
- A. Yes. ou recessfully find it defective, epart from the
- Q. As of the time you signed the declaration, did you understand why Letters Patent 3,659,285 was partly inoperative by reason of a defective specification?
- A. I'd say to the extent stated in this declaration,

  I think I understood or believed - -
- Q. How is this specification defective?

MR. WILLIAMS: Well, I object to the question. The witness has just testified

what his understanding was and he was referring to the document and the document speaks for itself.

THE WITNESS: What was that question again?

- A. I can't recall if I was told anything resides what

  (Whereupon, the previous

  was in the declaration.
- question was read back

  Q. Did you personally feet that it was defective in
  by the reporter.)

  are respect other than as stated in the declaration?
- A. I don't know, THE WITNESS: I don't know,
- I guess I was looking more at page 2 where they he are talking about claims being inadequate to ad the fully protect our invention. I am not sure I2, 5 do know just why this specification was considered defective. The adda as tracelvers with the radio and
- Q. Did you personally find it defective, apart from the statements in this declaration?

MR. WILLIAMS: Would you repeat (whereupon, the previous the question, please?

question was read back

(Whereupon, the previous

question was read back
Tell Williams I did a by the reporter.)

I originally thought the patent itself covered was

Q. I will restate the question: As of the time you

patent, did you consider the specification of that patent defective in any respect other than as stated in the declaration?

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Α.,

- A. I can't recall if I was told anything besides what was in the declaration.
- Q. Did you personally feel that it was defective in any respect other than as stated in the declaration?
- A. Indon'thknow. at circles 1, 7, 5 and 6 do in fact
- Q. Referring to the last five lines of page 2 of the declaration, did you as of the time you signed the declaration believe the enumerated claims 1, 2, 5 and 6 do in fact cover games using television monitors or broadcast receivers with the radio and intermediate frequency portions bypassed or disabled?
- A. Could I have that again? on this 28 what is it,

(Whereupon, the previous

question was read back

On the 284, I think I did mention in that Figure 19, by the reporter.)

a paragraph some place, that to my understanding

I believe that that THE WITNESS: I think I did.

I originally thought the patent itself covered such things. Earlier statement in the declaration of the

- Q. With respect to the declaration of the application for reissue of Patent No. 3,659,284, I believe you testified that regarding certain portions of the declaration, you relied on the Legal Department for the truth of the statements, is that correct?
- A. That is: correct elief that the enumerated claims 1,
- Q. And is that same thing true with respect to the portion of the oath we were discussing regarding your belief that claims 1,12,15 and 6 do in fact cover games using television monitors or broadcast deceivers with the radio and intermediate frequency portions bypassed or disabled? time with that
- A. I could reread the claims and tell you to the best of my understanding again how I interpret them, but again I have to put a large part of my trust in the Legal Department on this 28 what is it, my patent?
- Q. Your patent is the 284 patent.
- A. On the 284, I think I did mention in that Figure 19, a paragraph some place, that to my understanding the recorder.
- Q. I believe that that portion that you just referred to in the 284 patent you pointed out with respect to an earlier statement in the declaration of the

application for reissue of that patent relating to your understanding as to whether the television receiver and standard television receiver always meant any cathode ray tube. This is with respect to a different portion and my question is with regard to your belief that the enumerated claims 1, 2, 5 and 6 in fact covered games using the TV initial monitor, did you not rely upon the Legal Department?

MR. WILLIAMS: Mr. Welsh, I object. Mr. Rusch was in the midst of an answer and I think you interrupted him and I think he should be given an opportunity to continue with that answer and I suggest, Mr. Reporter, that you read twhereupon, the requested back the answer that Mr. Rusch had started to give.

MR. WELSH: I would like to have you mark that question because I don't believe he answered the question.

the numerion including a Loudecontage for of the

(Whereupon, the requested

answer was read back by

the reporter.)

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THE WITNESS: \_\_Covers the case

of units which are used solely for TV gaming and

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do not have capability to receive broadcast programs.

- Q. Are you reading from the 284 patent? belief set
- A. Yes, I am. Column 17, lines 12 through 15. The last sentence in that paragraph being, "This is illustrated in the simplified block diagram of ing Figure 19." Monitors or broadcast receives with the radio and intermedia MR. WILLIAMS: Have you finished your answer, Mr. Rusch? did you not rely on legal the WITNESS: I think so.
- I think both. I don MR. WELSH: Now, the question

  I asked you to mark, would you read that to the as

  witness, please? as or rather to see whether they

  covered by intent as his stated in the specification.

(Whereupon, the requested

Now, when you say as stated in the specification,
question was read back by

were you not referring to the specification for the
the reporter.)

284 patent?

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the question including a characterization of the testimony from last week, the record will showled what the testimony was last week.

answer that question, and it was just reread, but it is so long, do you think you could break it up

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Q. With respect to the statement of your belief set forth on page 2 starting at the 5th line from the bottom, that is your belief that the enumerated claims 1, 2, 5 and 6 do in fact cover claims using television monitors or broadcast receivers with the radio and intermediate frequency portions bypassed or disabled, did you or did you not rely on legal counsel?

- A. I think both. I don't remember specifically, but ld

  I think I quite probably read those claims to see

  what my intent was or rather to see whether they

  covered my intent as is stated in the specification.
- Now, when you say as stated in the specification, were you not referring to the specification for the 3 284 patent?
- A. I don't know if that phrase appears in both patents, but, as I say, as far as my intent goes, and I think all of our intent, it was that that phrase applied to all our work.
- Q. Referring now to the statement starting in the middle of the second page of your declaration, that in the context of your invention and the context of

the description in the Letters Patent No. 3,659,258
you stated, "I have always understood and believed
'television receiver' and 'standard television
receiver' to mean any cathode ray tube display
incorporated circuitry for a raster-type scan."

Do you find in the 285 patent any statements
supporting that belief?

MR. WILLIAMS: I object to the question, I think the 285 patent speaks for itself. Once more to answer the question, it would require that the witness review in detail a rather lengthy document and I see no reason for wasting the witness's time or counsel's time in having him do that.

and I may add that this was not pointed out to me; I specifically refrained from discussing this matter with any attorneys here this morning just so I wouldn't be asked about it and have objections and all that. Just before we started the deposition here this morning, I quickly browsed through this 285 patent to see if it at least in my mind covered the situation as the other one and I found at least

amphanize was not poiTHE WITNESS: "I think yes, I

one phrase which I think substantiates our intent. In Column 11 starting with line 49. "Suitable overlays may be provided over the screen in order to make 15 the game more realistic by making the screen look more like a putting green. The overlays may also be applied by broadcast TV or closed circuit TV or CATV or electronic displays." And I might add that we didn't intend to put overlays on one display and play a game on the other display, so even though this is only talking about overlays; in my mind, 11 it certainly included all the games themselves. There may be other instances, but, as I say, I scanned this patent in about two or three minutes and my eye happened to light on that portion which I again emphasize was not pointed out to me. In column 18 --(I will have to ask you a question, is this application Serial No. 126966 or 828154? Is one of them the application for my 284 patent? ) set itself rather than really be coone MR. WILLIAMS: TYes, it is, Ils Mr. Rusch. Now, as an engineer back to my reals and away from the Bathe WITNESS: -- If so, column 18 of the 285 patent, it says, "Other games and we and techniques can be carried out in the manner set forth in said application Serial No. 126966 and 828154."
Which again, in my mind, where it says, "In the manner set forth," would make me believe that this patent could refer back to that same Figure 19 and column 17 of the 284 patent which I mentioned.

Q. As of - - -

MR. WILLIAMS: I think he is not finished with his answer.

MR. WELSH: Excuse me.

THE WITNESS: Not quite. All right; further down in the column 18, beginning with line 38, it says, "the arrangement of the apparatus itself also can be changed in the manner set forth in the said application Serial No. 828154, for example, the dot generating apparatus can be built right into the television set rather than be a separate unit. The dot generation apparatus can be wired into the television set itself rather than really be connected to the antenna terminals thereof." Now, as an engineer back in my realm and away from the legal end and things I am not familiar with, this certainly would seem to me and I believe to most engineers to cover a case other

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Q.

than an RF type unit. I may add this, column 18 was not pointed out to me either. I found this at the wall found the other one, right before we started today. Shall I go through the rest of this to see if I can find more instances?

If you would like. With respect to the one that you just noted, that did refer to a complete television set, did it not?

MR. WILLIAMS: I object to the question as vague.

THE WITNESS: I don't know, it certainly doesn't have to. There would be no reason for the RF portion of the television set to do what this says.

- Q. But it does contemplate a complete television ag set, does it not so state? aph starting at line 28
- A. No, it just says the television set. To me,
  anyhow it would contemplate wiring in this dot
  generation apparatus considerably further along the
  line than the antenna terminals. It says rather
  than merely being connected to the antenna terminals thereof. If one was going to all the trouble of
  wiring it in, one of these things well, I don't

know, it would depend on the application, but certainly this could be wired in past the RF.

Doesn't it contemplate simply the addition of the dot generation apparatus to a television set which would still be capable of receiving broadcast signals?

Q.

MR. WILLIAMS: Well, I object, what is the "it" that you are referring to?

MR. WELSH: The portion of the specification of the 285 patent that he has just been referring to.

MR. WILLIAMS: Well, he has just been referring to a lot of portions of the that 285 application.

specifically to the paragraph starting at line 28 of column 18 of the 285 patent?

MR. WILLIAMS: Well, that
paragraph also refers to at least two different
arrangements and the question is vague in that
you haven't stated to which one the question relates
to.

THE WITNESS: I think I can

answer your question. Continuing a few lines further down, it says, "The output of the summer can be applied to the video amplifier directly, eliminating the need for a modulator and an RF oscillator."

Would you read the next sentence, please?

"This can be applied via a switch switching between the conventional video detector and the output of a summer so that the television can be used in the gaming mode or the conventional viewing mode."

MR. WELSH: Thank you; let's

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Q.

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A.

point out for the record before we take a break that that illustrates exactly the problem with the now vague question. There are two subject matters referred to in that paragraph and the witness answered to one and we now have no answer on the question as to the other subject matter.

take a short break. ad \$28154, that I could believe

your answer? on for release of the sent No. 3.553,235

The last one I did in that I read that additional, sentence you asked for. As to the previous question,

(Sy Ma. Welsh) With MR. WELSH: Did you complete:

and I am not sure; sItthink this could refer to chenta?

two modes, one of them being this embodiment of the 284 patent on page 17 which is called a us further embodiment which would be used solely for TV gaming and not to receive broadcast programs. I keep trying to say that our intent was to cover all or both such cases and in that this 285 was tied back into the 284 through that previous ag paragraph up in line 26, page 18, where it says other games and techniques can be carried out in the manner set forth in said application paratus Serial No. 126966 and 828154, that I could believe that the paragraph around line 40 could cover both Cases. We not rether than nevely being connected to the arceara termi MR. WELSH: Why don't we now take a break. It say that it purt be connected to

the video amplifler, but it says it can be (Whereupon, a recess

was taken.)

\*hat is done, then indeed with the switch that

is montioned one could switch between two modest

Q.

(By Mr. Welsh) With regard to the declaration for the application for reissue of Patent No. 3,659,285 there are such statements in there, are there not, on which you relied on counsel from the Sanders' Legal Department as to the truth of those statements?

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Before I answer that question, I would like to add t a little bit more to my answer of the previous of the one. Just before I went over to pour my coffee on the break, I looked at the last part of the paragraph we were discussing in column 18; and, to answer your question whether that paragraph refers just to a TV set that can be used for receiving . programs and playing games, I want to clarify it a little bit more. First, at the top of the paragraph it says, "The dot generating apparatus | | | can be built right into the television set" Then it says, "The dot generation apparatus can be wired into the set rather than merely being connected to the antenna terminals thereof." And the next sentence doesn't say that it must be connected to the video amplifier, but it says it can be. if that is done, then indeed with the switch that is mentioned one could switch between two modes; in one the television could be used in a conventional viewing mode, in the other in the gaming mode. If at that point the dot generating equipment were wired into the video amplifier instead of the RF, then the conventional viewing mode does not have

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must. What I specifically wanted to bring into the well record was line 52, which is part of that same paragraph; line 52 says, "A television receiver can be made just," and I emphasize the just, "for television gaming in the manner set forth in said application Serial No. 828154." So I would say that that again covers a case of a device which is used just for television gaming without receiving broadcast signals. Again perhaps television receiver in that sentence is a poor choice of words, but that is the way it is written. Now, may I have all the question I am supposed to be answering?

(Whereupon, the previous

question was read back

is formation and balias, it was probably information by the reporter.) that I recalled from the landaus' legal Department.

THE WITNESS: I believe I said

that before, yes, it have in order to prevent any

Α.

Q.

Would you point out in this declaration which of the statements fall in that category?

the extent to which you did rely on it?

MR. WILLIAMS: Well, I assume,

Mr. Welsh, you are referring to statements on which

he relied on legal counsel? Lieve Mr. Rusch is referring to the pateMR. WELSH: Yes. Yes.

MR. WILLIAMS: And I object to the question in that you haven't said whether you want statements upon which he wholely relied on the advice of legal counsel or also to include statements on which he relied on that counsel in combination with his own belief. I think the lied question is vague present for the part where it says, I would like you to point out any statements in the declaration in which you relied on legal counsel; " s and, if you did not rely entirely on legal counsel for the truth of the statement, then would you state the extent to which you did rely on it? t upon a All statements in here as it says were made on on information and belief, it was probably information that I received from the Sanders! Legal Department. with its assent. : AndMR. : ETLINGER: til would tlike to make a statement here in order to prevent any inaccuracy from creeping in the record. by The sen Sanders! Legal Department has nothing to do with patents and we have two separate departments in

the corporation; one is a patent department and one

Q.

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is a legal department. I believe Mr. Rusch is referring to the patent department only.

THE WITNESS: That is correct, and any time in this whole deposition where I previously referred to the Legal Department, I meant the Patent Department. I intended to use the terms interchangeably until corrected. Well, on the first page of this declaration and I relied on the Patent Department for the part where it says, "We will, prior to allowance of the reissue application surrender original United States Letters Patent 3,659,285 - - - In that I thought that had been surrendered long before this reissue thing happened and that it was not contingent upon a volved reissue being applied for. Certainly I relied on them in the statement that the application for now reissue being on its behalf and its request and its with its assent. And I relied on the Patent he as Department in the sentence that said, "Letters Patent 3,659,285 is partly inoperative by reason of a defective specification." I relied on them where it says, " That the exclusive licensee of said Letters Patent has attempted to grant licenses

arity w/10 5727 76 under both said Letters Patent and other United
States Letters Patent relating to similar subject
matter to various manufacturers of certain coinoperated television games using the invention of
said Letters Patent 3,659,285." And I relied on
them for the next phrase about, "The said coinoperated television games," in that I didn't know
to whom the exclusive licensee had attempted to
grant licenses to. And I relied on the Patent
Department to handle the legal reasons, if any,
as to why claims 3, 4, 7, 8, 9, 10, 11 and 12 were

I stages and by only I relied on them to some

inadequate to fully protect our invention. With

ord. Punet. 5/27/76 in television receiver and standard television
receiver in that I believe I felt then and I do now
that at least the technical specifications of this
patent and the 284 patent specifically describe as
an option for these games the use of displays not
having an RF section and not being able to receive
television signals. A The bottom of page 2, it says
specifically, "That on information and belief some
manufacturers of coin-operated television games - -

Clarit

As it says, that was information and belief I relied

on the Patent Department for the truth of that

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of coin-operated television games. The next sentence on page 3 again specifically says on information and belief as opposed to our own knowledge, and I me think that speaks for itself. I relied on the sentence on the sentence of the sente

Patent 285 or indeed the 284 or the other ones which might be interpreted by some to say that these games could only be played on a full TV receiver with

belief. As far as the inclusion of terms in

RF stages and by only going in at the antennament terminals, I could say I didn't rely on anybody and

except myself when I signed the oath to say that ot

this was possible if proved, through their error

and without any deceptive intention. I think I have

tried to define my intention and I believe it shows

in the specification of these patents and again to

the extent, if any, that the claims didn't cover the

intent, I have to rely on the Sanders' Patent

Department, although we had discussed it earlier

this morning, as you The last sentence of that:

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paragraph where it says certain claims were not included in Patent 285 through error, etc., like I say, I didn't have to rely on anybody to be able to sign this and say if that happened, it was without any deceptive intention on my part and on information and I believe I would say without deceptive intention on anybody's part here at Sanders. Obviously in a portion of the next sentence beginning in the next paragraph where it says statements based on information and belief are believed to be true, I relied on the Patent Department. As far as the punishment and jeopardizing the validity of the lete. application, I again rely on the Patent Department only to the extent that those horrible things would happen. Indidn't rely on them as to whether or not I would make any willful false statements because it I didn't and I am not now wil

As far as the rest of the 5/27/2 declaration goes, I relied on the patent offices with 5/27/2 thinking that that was the best thing to do for the company.

Q. Going back, although we had discussed it earlier this morning, as you went through here, I don't

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that portion beginning at the fifth line from the bottom, you did with respect to the last three lines, but I don't think you stated whether - - -

- A. Excuse me, the fifth line from the bottom of what?
- Q. Page 2. Serve covered games using television worldor

MR. WILLIAMS: Well, I object because, as you said, there has been extensive testimony this morning on that particular portion of the declaration and I don't think there is any reason to go over that again.

- Q. Just so this portion of the record will be complete,

  I would like to have you make this statement with

  respect or state whether that belief was based
  on reliance of the Patent Department at Sanders?
- A. This is the one beginning with the words, "That while I believe - -"?

wiekness, the luncheon

recess was taken.)

- Q. Yes.
- A. Where does it stop?
- Q. Just those three lines. a prior to the time were
- A. Ending with the comma after disabled?
- Q. Yes, because you have already commented about the next portion.

- A. Now, am I answering this as of now, as of the time
  I signed this or both or what?
- Q. As of the time you signed it.

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and indeed everything in all these patents, should in fact have covered games using television monitors, or broadcast receivers with the radio and intermediate frequency portions bypassed or disabled, that being my intent at that time as I think is shown in the prepare in some of these applications at least. Now, whether these enumerated claims do in fact cover such games or whether I believed it then, for the legal aspects I relied on the Sanders' Patent Department.

MR. WELSH: This would be a good time to break for lunch.

(Whereupon, the luncheon recess was taken.)

Q. (By Mr. Welsh) Mr. Rusch, prior to the time you went to work on the TV game project under Mr. Baer, had you ever seen any CRT displays in connection with computers?

- A. I-don't know. our group mostly was working on
- Q. Had you had anything to do with computers?
- A. Not really. sep voltages and things like that.
- Q. Had you prior to that time had any familiarity with cathode ray tube displays for displaying alpha numerics?
- A. In a small way, yes.
- Q. Where did that take place?
- A. At Raytheon, Wayland, Massachusetts.
- Q. That was during that short period when you interrupted your employment at Sanders?
- A. Yes. vertical or a horizontal amplifier.
- Q. And what did you have to do or how were you familiar with alpha numeric displays at that time?
- A. I am not 100 percent positive that they were alpha numeric, but I think they may have been. Raytheon was doing a job for the FAA and, as I remember it, one portion of this job had to do with scan converters and displays of where aircraft are and things like that. As I say, I can't specifically remember seeing alpha numerics, but I imagine they had facilities for that. I didn't work personally on this scanconverter and of) the thing with those

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displays, but our group mostly was working on deflection amplifiers generating high current sawtooth sweep voltages and things like that.

- Q. What type of devices were the deflection amplifiers used with?
- A. Well, cathode ray tubes.

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Were they used to generate a raster?

MR. WILLIAMS: If you recall.

I put it for a parent THE WITNESS: To I don't remember.

I remember working mainly on just one of the deflection amplifiers. I forget whether it was the vertical or a horizontal amplifier. In fact, ing for a lot of the development work, I am not even sure there was a cathode ray tube on the bench. We just had a deflection coil wired in the circuit. I don't remember whether there was a raster involved or not.

- Q. What use was made of the sawtooth sweep voltages?
- A. Well, I believe it was to deflect the spot or the electron beam. Whather we used some standard
- Q. Did you actually use a sawtooth generator?
- A. What kind? Is I say, the high current output and ve
- Q. Any kind problem at that time.

- A. Listhink so, yes. use of the CRT with the deflection
- Q. Was that similar to or different from the sawtooth
- A ... generator that you used in your electronic spot control? aircraft.
- A. It must have been different. a such CPT?

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- Q. You say it must have been? re I ever saw that
- Α. Yes.icular equipment in use. I did visit an FAA
- Q. Why must it have been different? free that period
- Α. I put in for a patent on this particular one I used in the spot control here at Sanders and ly I wouldn't have done that if I had used a similar circuit some place else, and I hesitated in answering your question about whether or not I used a sawtooth 0. generator in that - and I asked you what kind you

meant. As Inrecallsthat job, which was about I have sixteen years ago, our main problems were trying to generate the high current to go into a magnetic

deflection yoke and I can't recall whether we used

a commercial sawtooth generator as the input to

this circuit or whether we used some standard

circuit and had one built. It doesn't ring a bell

with me. As I say, the high current output end was

the main problem at that time. Ting I think it was

- Q. What was the end use of the CRT with the deflection amplifier you were working on?
- A. I believe it was used in FAA traffic control centers
  to track aircraft.
- Q. Was a raster scan generated on such CRT?
- A. I am not sure. I am not sure I ever saw that

  particular equipment in use. I did visit an FAA

  station here in Nashua sometime after that period

  and I thought that perhaps some of the equipment

  I had helped on was in it, but I couldn't really

  positively identify it as such, so I don't really
- A. know. strictly technically accurate, they were
- Q. And the work that you did with images generated on the screen of the CRT.
  - Not really in my specific end of this work as I have described it. As I say, I can vaguely remember, we across the room, some place the Raytheon people themselves being concerned with scan converters; and, before you ask me what that is, I am not even sure I remember what a scan converter is now, but I remember the phrase, and they handled most of that actual display end of the thing. As I said, our assignment was more developing I think it was

A. 20(P) 5/27/7/

either the horizontal or a vertical or maybe both deflection amplifiers. es on a cathode ray tube Q. Were they generating images on the screen of the CRT across the room? as I have already talked about. Α. I think so, but I can't remember really just what they look like. Q. Do you recall whether it was a point plotting or rasteruscan-type display? do with generation of 0. A. No.ges on the rester scan-type display? Q. Were the sawtooth voltages you were dealing with all. usedias sync. epulses? about it praviously, was one A. To be strictly technically accurate, they were sawtooth currents, not necessarily sawtooth I think voltages; and I don't remember whether they were used in any kind of syncing, the job came in and How long did you work on that project? orward way Q. I'd say approximately six months, perhaps. asked ma Α. Did you have anything to do with the scan converters? Q. ~ No more than I just mentioned that I knew they were Α. over in the corner of the room and, as I say, as I remember it, the Raytheon people were dealing with them, as for a random positioning type application Prior to the time you went to work on the TV game Q.

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project under Mr. Baer, did you have anything to do with generation of images on a cathode ray tube screen?

- A. I think only insofar as I have already talked about.
- Q. That is with respect to deflection amplifiers for cathode ray tubes?
- A. Yes.that for a raster scan-type display?
- Q. Did you have anything to do with generation of images on the raster scan-type display?
- I am not sure. One job at Sanders that I can recall, Α. I think I have talked about it previously, was one where a proposal had gone out based on being able to deflect an electron beam rapidly using, I think it was, 50 watts of power - (I am quite sure I Q. discussed this already) - and the job came in and people found that the normal straightforward way to do it took about 500 watts; and someone asked me to help and I was lucky enough to get a good idea which solved that problem and I think became the Α. basis for another patent, but I don't think that was for a raster scan display. I am quite sure that it was for a random positioning-type application. Α. At some time I remember trying to come up with a

character generator. At the same time another group here at Sanders was working on it and I forget all the details of that one. I do remember that in that particular instance whatever it was that I came up with was not as good as theirs and mine I was never used as far as I know.

- Q. Was that for a raster scan-type display?
- A. I am not sure. The work I did was more or less

  paper-type thinking and I don't remember my ideas

  even getting to the circuitry stage. I don't think

  I ever saw the display that was actually involved

  and I can't really remember if it was a raster scan

  or not. Again this was probably about thirteen
- Q. Did you have any awareness this is again prior to the time you went to work on the TV game project under Mr. Baer did you have any awareness of raster scan displays and generation of images on such displays?
- A. I had seen TV sets. To the time that you was
- Q. Did you have knowledge of how images were generated

  A. on TV sets? In quantion, I thought, year
- A. I am ashamed to say it was very minimal. Probably any TV technician knew a lot more of how they were

generated than I did. I remember I did learn quite a bit when I first went on the project with part to Mr. Baer. I did feel I had a good reason for learning such things as normal sweep times, things like that in TV sets. I am not saying I had no knowledge of how a TV set worked, but it wasn't really very specific ers. I was given an assignment What was the source of that knowledge? ase generator Just my general background in electronics on a to What type of display did you see at the FAA Center in Nashua on the occasion that you mentioned? As I recall, it was a horizontal situation-type display. Again, this was probably about thirteen or fourteen years ago. I can't recall exactly. I believe there were spots or some indications on that of where the airplanes were flying around the area.

I don't remember exactly at you went to work on

Being thirteen or fourteen years ago, then, that Q. would have been prior to the time that you went to work under Mr. Baer?

That was your question, I thought, yes. mouters? A.

Still prior to the time you went to work on the all Q. TV game project under Mr. Baer, did you have any

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other familiarity with raster scan displays and the generation of images other than with respect to television sets on which you observed broadcast programs? Lat is now fairly early computers.

A. About the only other one that I recall that would come close was at I T & T in Nutley, New Jersey, before I came to Sanders. I was given an assignment to generate a randomly triggered staircase generator to move lines on a display, a CRT, in response to random input pulses. I wouldn't call this what I think people think of as a normal raster scan, but it was as I have described.

What was the end usefor that device?

- A. It was probably classified, I have no way of knowing whether it still is or not. It involves counter-
- Q. Still prior to the time that you went to work on the TV game project, what familiarity did you have with computers?
- A. Very little. remember sizes to any passany sizes?
- Q. What was the familiarity you had with computers?
- A. While I was at MIT, I was accepted in what was called the 6-A coop course with Air Force Cambridge

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Research Lab. It was either my first term at that lab or one of the first terms that I was in a group which was doing some kind of development work on I guess what is now fairly early computers. I remember racks of tubes, plug-in units called trigger pairs, which are probably now referred to as flipflops. I was rather naive and green at that time insofar as engineering is concerned. I really didn't learn a lot of computer techniques in those two or three months, whatever it was.

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- Q. Did you acquire any familiarity with computers from that time until the time when you went to work on the TV game project?
- A. Not really other than naturally knowing they exist and reading about them somewhat, but my work has never been linked very strongly with computers.
- Q. Did you have any occasion to visit any computer facility?
- A. I may have been to companies which had computers,
  but I don't remember going to any company specifically
  to look at computers, no.
- Q. Did you during that same period observe any computers in operation with cathode ray tube displays:

4 (Relph) w/ 5/22/26

- A. This is the period before I went to work for Mr. Baer?
- Q. Yes aration of the document of which that appears
- A. I don't think so. As I say, there may have been a computer involved in this FAA job at Raytheon, but I don't recall it; and, if there were, I wasn't involved in that part of it at all.
- Q. Other than broadcasts observed on a TV receiver screen, had you prior to the time you went to work for Mr. Baer on the TV game project ever observed any game being played using the screen of a cathode ray tube?
- A. No. Let me make sure we understand each other. I

  may have seen the TV that Ralph and Bill Harrison

  were using before I officially accepted his offer to

  work for him. I am not sure whether or not I did,

  but when I said no, to the best of my recollection,

  I can't recall seeing games played on a TV display,

  CRT or whatever you want to call it, any place else.

  To the best of my knowledge, that was the first

  place I had ever seen such a thing.
- Calling your attention to what have been marked as Exhibits 26-8 through 26-18 which bears the title

\* (Ralph) w/R 5/27/76

- "Special Display Techniques Final Report Date 8-5-68. Did you have anything to do with the Α., preparation of the document of which that appears to be a copy? er specifically doing it. I recognise Α. Could I have the question again? I put the whole thing together or not. (Whereupon, the previous Q. Referring to Sertion 5 starting on page 26-11, that question was read back section being entitled Digital Circuit System, " by the reporter.) do you recognize the description in that section? A . I think so. THE WITNESS: Yes. Q . . What did you have to do with it? ystem referred to I at least recognize some of these figures as being Α. drawn by me. the early Baer system or the later Which ones are those? u discussed last week? Q. Exhibits 26-13; 141115, 116; a looking for some Α. Did you prepare this report? lly variable delay and Q. Indon't remember. rather spaces, so I can't say for Α. Did you have anything to do with the preparation of Q. the written material, pages 26-8 through 26-12? Quite possibly. Obviously we can see my name and Α.
- Mr. Baer's name on the top of this, but I was trying to see if I could recognize any of the wording being mine.

- Q. You don't have any specific recollection of preparing this report?
- A. It looks like I quite possibly could have, but
  I don't remember specifically doing it. I recognize
  parts of it, but I don't know if I put the whole
  thing together or not.
- Referring to Section 5 starting on page 26-11, that section being entitled "Digital Circuit System,"

  do you recognize the description in that section?
- A. I think so se as being my work. I can't really tell.
- Q. Do you know whether the digital system referred to in there apparently shown in block diagram form in Figure 5 is the early Baer system or the later square spot system you discussed last week?
- A. I can't really tell. I was looking for some reference to the electronically variable delay and this write-up is rather sparse, so I can't say for sure which that is. It could be the first system or it could be at least a part of the later square spot system.
- Q. Having reviewed at least a part of this report,

  did it help refresh your recollection as to whether

  or not you prepared it?

- A. I can't recall whether I prepared it exclusively.

  I say I recognize parts of it as being mine; I may have done it in conjunction with Mr. Baer whose name appears on it also.
- Q. Do you recognize parts of the descriptive material, pages 26-8 to 26-12 as having originated with you?
- A. I think I recognize the section on page 1 called basic theory as possibly being mine in that I think it refers to some of these figures which I do seem to recognize as being my work. I can't really tell, assuming that I did write this section, whether I wrote it specifically for this report or whether it was something that I had written earlier and maybe had gotten pieced in here; I can't tell.

MR. WELSH: Mr. Williams, with the exception of those questions which you instructed the witness not to answer, that completes my direct examination of Mr. Rusch.

MR. WILLIAMS: All right; we

have no cross.

MR. WELSH: Thank you,

Mr. Rusch.

See note next page

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Deponent William 1. Neisch note below
THE STATE OF NEW HAMPSHIRE)
COUNTY OF Helle in ogin
Subscribed and sworn to before me this
day of <u>may</u> 1976.
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Justice of the Peace and/or Notary Public
Note: I have corrected these
The I have collected to
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sum has another circuit l'a
number, quote circuit diagram, date etc. with the exhibits.
To the extent covered by the
note they are corrected carefully.
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